

## **LISTING OF THE CLAIMS**

This list of Claims will replace all prior versions, and listings, of claims in the Application. The status of each claim is indicated in parenthetical expression following the claim number. All claims currently being amended are shown with deleted text either struck through or double-bracketed and new text is underlined. Additionally, the status of each claim is indicated in parenthetical expression following the claim number.

Claims 1-13 were pending in this Application.

### **Listing of Claims:**

1. (Cancelled)
2. (Cancelled)
3. (Cancelled)
4. (Cancelled).
5. (Cancelled)
6. (Cancelled)

7. (Currently Amended) A process for the preparation of oligomeric derivatives of olefin monomers, comprising contacting an olefin monomer or a mixture of olefin monomers under oligomer formation conditions with a catalyst composition to form oligomeric derivatives, wherein the catalyst composition comprises:

(a) a Group 6 metal amide complex or compound, wherein the Group 6 metal amide complex corresponds to the formula  
 $M(NR^1_2)_rX_{v-1}$   
wherein,  
M is a Group 6 metal;  
R<sup>1</sup> independently in each occurrence is a secondary or tertiary alkyl group of from 3 to 20 carbons, a cycloalkyl group of from 5 to 20 carbons, an aryl or alkylaryl group of from 6 to 20 carbons, or a tri(C<sub>1-20</sub>)hydrocarbysilyl group, and optionally two R<sub>1</sub> groups on the same or adjacent amide groups may be joined together thereby forming a heterocycloaliphatic ring, or an alkyl-, aryl-, cycloalkyl-, or trihydrocarbysilyl- substituted derivative thereof;  
X is an anionic ligand of up to 20 atoms not counting hydrogen, and optionally one or more X groups and/or one or more NR<sup>1</sup><sub>2</sub> groups may be joined together to form an aliphatic or aromatic ring, r is a number greater than 0 and less than or equal to v; and  
v is the valence of M,

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(b) a Group 1, 2, 12, 13 or 14 metal hydrocarbyl composition or compound, and

(c) a solid support comprising aluminum phosphate, and

wherein the oligomeric derivatives comprises an  $\alpha$ -olefin product mixture of greater than 10 percent 1- octene and less than 90 percent 1-hexene, with less than 10 percent of all other  $\alpha$ -olefin reaction products, and optionally polymer.

8. (Currently Amended) The process of claim 7 wherein the olefin monomers is ethylene.

9. (Currently Amended) A process for the catalytic oligomerization of ethylene to yield an  $\alpha$ -olefin product mixture, wherein the  $\alpha$ -olefin product mixture comprises greater than 10 percent 1- octene and less than 90 percent 1-hexene, with less than 10 percent of all other  $\alpha$ -olefin reaction products, and optionally polymer, comprising a Poisson distribution of 1-hexene and 1-octene products characterized in that the catalyst composition comprises a Group 6 metal amide complex or compound, a Group 1, 2, 12, 13 or 14 metal hydrocarbyl composition or compound, and a solid support comprising aluminum phosphate.

10. (Cancelled)

11. (Currently Amended) A process for preparing copolymers of ethylene and one or more C<sub>4-8</sub>  $\alpha$ -olefins by the direct  $\alpha$ -olefin formation and polymerization of ethylene by a process of any one of the preceding claims 7 and 9 and polymerizing at least a portion of the resulting oligomers.

12. (Original) A process according to claim 11 in which the ethylene source is recycle of monomer in an ethylene polymerization process.

13. (Original) A process according to claim 11 wherein a mixture of catalyst compositions or a second olefin polymerization catalyst is employed.